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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,906	02/20/2004	Natan E. Parsons	A2-30US1	7197
41664	7590	10/18/2005		
IVAN DAVID ZITKOVSKY PH.D PC 5 MILITIA DRIVE LEXINGTON, MA 02421			EXAMINER DEVORE, PETER T	
			ART UNIT	PAPER NUMBER
			3751	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,906

Applicant(s)

PARSONS ET AL.

Examiner

Peter T. deVore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/8/05
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-16, 23, 24 and 28-36 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/30/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Invention I and Species 1 in the reply filed on 7/8/05 is acknowledged.

Claims 17-22 and 25-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention and Species, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15, 16, 23, 24, and 28-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "said relief passage" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said pressure chamber" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "said output" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "said output" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 contains self-contradictory claim language. The recitation "said vent passage includes a flexible member extending between a pilot chamber cap and said vent passage in said flexible diaphragm" implies that the vent passage is both a part of and separate from the flexible diaphragm.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8-10, 13-16, 23, 24, and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,125,621 (the '621 reference).

The '621 reference discloses a flush valve (Figure 4) comprising a valve body having inlet 16, outlet 18, and seat 30, a valve member (diaphragm/piston 24) with a centrally located passage/vent passage 92, an external cover having top cover 14, front cover 52 (which allows adjustment access to sensor 62), main cover body 54, and sensor window/external flow passage 52, and an electronic control module/electronic system having battery 104 and sensor 62, an actuator 58, a screw (female threaded portion of main cover body 54), a pressure cap 68, a relief passage 98, a bypass orifice

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96, a vent passage 92, a flexible member/hollow tube 86, and a spring (see col. 5, lines 55-57).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,125,621 (the '621 reference) in view of Lopez-Torres.

The '621 reference discloses a flush valve as discussed supra, but does not disclose that the sensor is an optical sensor. Instead, an ultrasonic sensor is disclosed (see col. 5, lines 15-17). However, the Lopez-Torres reference discloses a similar flush valve including an optical sensor (see col. 4, lines 38-30). It would have been obvious to substitute an optical sensor as taught by Lopez Torres for the ultrasonic sensor of the device disclosed in the '621 reference wherein so doing would amount to substitution of one type of sensor for another in the art and the use of any of these sensors would work equally well in the device disclosed in the '621 reference.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,125,621 (the '621 reference) in view of U.S. Patent No. 6,00,675 (the Cheng reference) or Johnson.

The '621 reference discloses a flush valve as discussed supra, but does not disclose a button on the top cover to manually engage the valve. However, the Cheng and Johnson references each disclose such a button (element 55 of Cheng, element 38 of Johnson) to allow for manual operation of the valve during sensor malfunction. It would have been obvious to employ a button on the cover of the device disclosed in the '621 reference in view of Cheng or Johnson to allow for manual operation of the valve during sensor malfunction.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,125,621 (the '621 reference) in view of Cheng.

The '621 reference discloses a flush valve as discussed supra, but does not disclose a filter attached to the diaphragm. However, the Cheng reference discloses a filter 3 attached to the diaphragm 2 for purification of the inlet fluid. It would have been obvious to employ a filter on the diaphragm of the device disclosed in the '621 reference in view of Cheng for purification of the inlet fluid.

### ***Allowable Subject Matter***

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter T. deVore whose telephone number is (571) 272-4884. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pd



DAVID J. WALCZAK  
PRIMARY EXAMINER